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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/634,910

08/06/2003

Woon-Song Baik

K-0528

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34610

7590

08/01/2008

KED & ASSOCIATES, LLP

P.O. Box 221200

Chantilly, VA 20153-1200

EXAMINER

LEVITAN, DMITRY

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

08/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/634,910	<b>Applicant(s)</b> BAIK, WOON-SONG	
	<b>Examiner</b> Dmitry Levitan	<b>Art Unit</b> 2616	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-19,21 and 22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-19,21 and 22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

Amendment, filed 6/12/08, has been entered. Claims 1, 2, 5-19, 21 and 22 remain pending.

### ***Drawings***

1. The drawings were received on 8/06/07. These drawings are not acceptable.
2. Path 'b' shown on Fig. 7 is unclear, as it does not properly show the connection between mobile terminal 30 and agent 710, as the elements of the path are not identified.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

1. The disclosure is objected to because of the following informalities:

Unclear text on page 23, [0071], which is directed to the connection between agent 710 and the mobile subscriber 30, which is shown as connection “b” on Fig. 7. The connections of agent 710 to other elements of the system are unclear. It is unclear if Path/connection ‘1’ of Fig. 7 is a direct connection between 720 and 710 or these elements are connected through Internet 20.

Appropriate correction is required.

2. The amendment filed 6/12/08 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: “Agents 710 and 720 may communicate with one another directly along path 1 or indirectly along path which passes through Internet 20”.

Applicant is required to cancel the new matter in the reply to this Office Action.

### ***Claim Rejections - 35 USC § 112***

1. Claims 1, 2, 5-19, 21 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claims 1 and 19 proposed limitations are directed to “a plurality of combinations of packet-pattern attributes, each combination having a different security classification”.

The related portion of the specification, Table 2 and [0048]-[0051], teaches using IPSec security parameter but does not teach using classifying each combination.

2. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 limitations, directed to “static information” are unclear, as it is not understood what information is considered static and what is not.

### ***Claim Rejections - 35 USC § 103***

3. Claims 1, 2, 5-19, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Uskela (US 6,980,512) in view of Puuskari (2002/0032800).

4. Regarding claims 1, 11, 19, 21 and 22, Uskela teaches a method for controlling a packet call in a mobile communication system (mobile system, shown on Fig. 1 and 4:44-5:30, wherein GGSN 7 performs screening/filtering for packets directed to the mobile user 1), comprising:

registering filtering information for storage in a database, the packet call filtering information including packet pattern attributes, including security attributes (storing in a screening list for subscribers to screen/filter the calls received from external terminals 5 according to connection point identifiers, CEI, including cipherkey of IPSEC protocol, as shown on Fig. 2 and 5:51-6:25);

if a packet addressed to the subscriber as a destination is received, determining whether to set the call connection for the received packet of a call based on a comparison of attribute information of the received packet and the registered call filtering information (determining on establishing a connection for the received call or deny it, based on the comparison of CEI of the received packet with CEI of the screening list, as shown on Fig. 2 and 5:52-6:24),

activating one of a rejection filter or a permission filter based on information stored in the packet filtering information (accepting or rejecting packet based on the screening list tag indication to allow or deny connections to certain endpoints, as disclosed on 2:45-50) and

setting the call according to the determination step above (performing CEI check/matching with the screening list, including the tag, and packet acceptance or rejection according to steps S103-S106 on Fig. 2).

Uskela does not teach using filtering information comprising a combination of attributes, including different security and different arrangements.

Puuskari teaches implementing filters, based on a predetermined set of parameters to identify packets or data flows, as disclosed on [0007], including Secure Parameter Index, as disclosed on [0015].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using filtering information comprising a combination of attributes, including different security and different arrangements of Puuskari to the system of Uskela to improve the system security and authentication to protect the system against attacks 6:15-25.

In addition, regarding claim 19, Uskela teaches an apparatus for controlling a packet terminating call in a mobile communication system (GGSN 7, as shown on Fig. 1 and 4:44-5:5), comprising:

a database which stores routing information and filtering information of a protocol data unit for a packet radio service (memory of GGSN to store the screening list 5:14-31, which comprises routing and filtering information as shown in example 7:37-54);

a terminating call control section which controls a terminating call setting for the protocol data unit based on the routing information and the filtering information (portion of GGSN to perform call termination according to the process, shown on Fig. 3 and 6:61-7:54);

a message processing section which performs an inquiry and/or update of the filtering information based on an inquiry message and/or update message of the filtering information (portion of GGSN performing inquiry for records at step S205, shown on Fig. 3 and 7:2-10); and

an Internet protocol processing section which processes the protocol data unit and performs the terminating call setting procedure under control of the terminating call control section (portion of GGSN performing communication with Internet, as disclosed on 7:16-54).

5. Regarding claim 2, Uskela teaches call screening list to comprise information on activating the screen list, as establishing detection points for received/transmitted packets, as internetworking process between the GGSN and IP, wherein the detection point activate/start interrogation process for a subnetwork, comprising several addresses 6:61-7:36, as shown in example 7:37-53.

6. Regarding claims 5 and 6, Uskela teaches call screening list to comprise the received packets CEI, including IP addresses, port numbers and other information identifying the packet source, as the CEI of a packet is inherently located in the header of the packet, wherein the CEI packet information is inherently indicated by a known pattern, 5:66-6:25.

7. Regarding claim 14, Uskela teaches GGSN node comprising the packet screening list, according to static information 5:1-37 and 5:51-55.

8. Regarding claim 15, Uskela teaches receiving a packet from a mobile user, identifying the packet CEI and using the CEI of the packet to register the packet screening list information based on the received packet, as shown on Fig. 3 and 6:61-7:54.

9. Regarding claims 16 and 18, Uskela teaches performing screening for uplink packets in the mobile terminal to avoid air time charges 5:14-24 and propagating the screening list across the network. Therefore, the screening list, created in dynamic process of Fig. 3 and 6:1-7:54, as a result of inquiry of the mobile unit and subsequent update/creation of the screening list, is transferred to the mobile unit.

In addition, regarding claim 18, Uskela teaches strong authentication for the system due to the charging involved 6:21-24, therefore authenticating the mobile subscriber in the system.

11. Regarding claims 8, 12 and 13, Puuskari teaches using a wireless system, comprising GGSN implementing filter for packets, based on the Type of service (IPv4), connection type (IPv6) and traffic class field (IPv6), as disclosed in [0007] and [0008].

12. Regarding claim 7, Uskela in view of Puuskari substantially teaches the limitations of the claim (see the parent claims rejection above).



In addition, Uskela teaches using the source address information for SEI 6:14-24, including use of subnetwork comprising a plurality of IP addresses 7:30-35, identified by masks as shown in example 36-54 for the packets transmitted from the mobile unit.

Uskela in view of Puuskari does not teach using subnet mask for the packets directed to the mobile unit.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using subnet mask for the packets directed to the mobile unit to the system of Uskela in view of Puuskari to improve the system operation in the other direction of the communication by excluding packets from particular addresses.

13. Regarding claims 9 and 10, Uskela in view of Puuskari substantially teaches the limitations of the claim (see the parent claims rejection above).

In addition, Uskela teaches identifying the packet destination and source ports for the screening list 6:14-18 and using a range of addresses for the screening list profile 7:37-54.

Uskela in view of Puuskari does not teach using ranges to indicate destination and source ports in the screening list.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using ranges to indicate destination and source ports in the screening list to the system of Uskela in view of Puuskari to save memory in the system and simplify the system operation with the screening list.

14. Regarding claim 17, Uskela in view of Puuskari substantially teaches the limitations of the claim (see the parent claims and claim 15 rejection above).

In addition, Uskela teaches authenticating Internet subscriber 6:18-24.

Uskela in view of Puuskari does not teach using dynamic registration procedure of Fig. 3 and 6:61-7:54 for the packets directed to the mobile unit.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add using dynamic registration procedure for the packets directed to the mobile unit to the system of Uskela in view of Puuskari to improve the system operation in the other direction of the communication by excluding packets from particular addresses.

### ***Response to Arguments***

Applicant's arguments filed 6/12/08 have been fully considered but they are not persuasive.

On page 9 of the Response, Applicant argues that Fig. 7 clearly identifies connection between serving node and the agent.

Examiner respectfully disagrees.

Fig. 7 is amended, are unclear, because Fig. 7 connections, shown as “b” or “1” are not understood, as the connection “b”, between mobile terminal 30 and agent 710 implies bypassing GPRS network and GGSN element, in comparison with connection “a” comprising these elements, is not explained in the disclosure.

Connection ‘1’ of Fig. 7, between internet host 720 and agent 710, also is not explained in the disclosure.

On pages 9 and 10 of the Response, Applicant argues that current amendment to the specification, in [0071], does not introduce new matter.

Examiner respectfully disagrees.

The specification, as filed, provides no information on direct communication between agent 710 and Internet host 720, bypassing Internet 20. Agent 710 and Internet host 720 have been disclosed as Internet elements without any direct communication capabilities.

Therefore, Agents 710 and 720 may communicate with one another directly along path 1 or indirectly along path which passes through Internet 20” is new matter.

On pages 10 and 11 of the Response, Applicant argues that Claims 1 and 19 proposed limitations are directed to “a plurality of combinations of packet-pattern attributes, each combination having a different security classification” are supported by the specification, as filed.

Examiner respectfully disagrees.

Table 2 and corresponding text on [46]-[51] are directed to three valid combinations, wherein Security Parameter Index is included only in one type of the three combinations and does not indicated different security classification, as claimed.

Security Parameter Index, as originally disclosed, is one of call filter attributes, without any indication of whether or not a PDU was transmitted with encryption in the disclosure.

The disclosure, as filed, does not comprise any indication of a classification step for each combination, which is inherently precedes "each combination having a different security classification", because the step of classification/assigning classification is essential for the each combination to have it.

Applicant failed to resolve the clarity problem of claim 14, which was indicated in the previous Office action.

***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dmitry Levitan whose telephone number is (571) 272-3093. The examiner can normally be reached on 8:30 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571) 272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dmitry Levitan  
Primary Examiner  
Art Unit 2616

/Dmitry Levitan/  
Primary Examiner, Art Unit 2616